

# FLORIDA HIGHWAYS

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Vol. IV

AUGUST, 1927

No. 8

Published by the State Road Department

\$1.00 Per Year

Single Copies 10c



Moonlight on the Suwannee River where Road No. 2 spans the stream.



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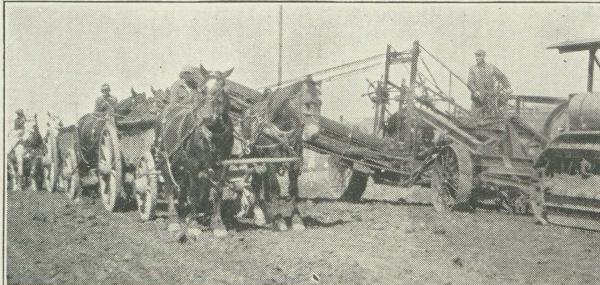
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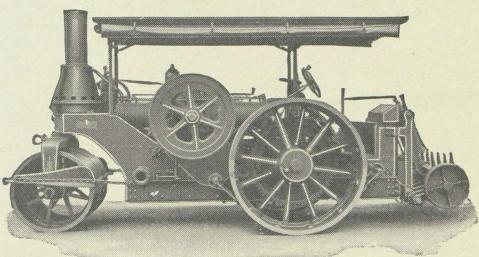
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# FLORIDA HIGHWAYS



Vol. IV

AUGUST, 1927

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## State Road Number Two

By the Editor, With the Assistance of the Office Engineer

**I**N LINE with the policy announced in the July issue of Florida Highways, namely, to emphasize in each of the next few numbers, some one of the primary trunk line roads—roads in the preferential system—the present issue deals in the main with State Road Number Two, and it will be found that the great majority, if not all, of the views presented are of scenes along this great trunk line highway. They show, as words cannot, the great progress which is being made toward its final completion as an all-paved, thoroughly modern and standard road.

### The Route and Location

As in all other instances, the general routing of the road has been defined by legislative enactment. So that we find that State Road No. 2 is designated as extending from the Georgia State line north of Jennings to Fort Myers, by way of certain designated cities, towns and geographical points. But, unlike any other of the roads of the primary or preferential system, it is impossible to give in a single figure the distance between such Georgia State line and Fort Myers. This results from the fact that in Lake County, there are three separate and distinct designations of Road 2. It is customary to state that the distance is 378 miles, and this distance is the one over that portion of the road first outlined in the law; to which 65 miles is added to give the distance on the routing mentioned second, and 16 miles for the distance on the location last mentioned.

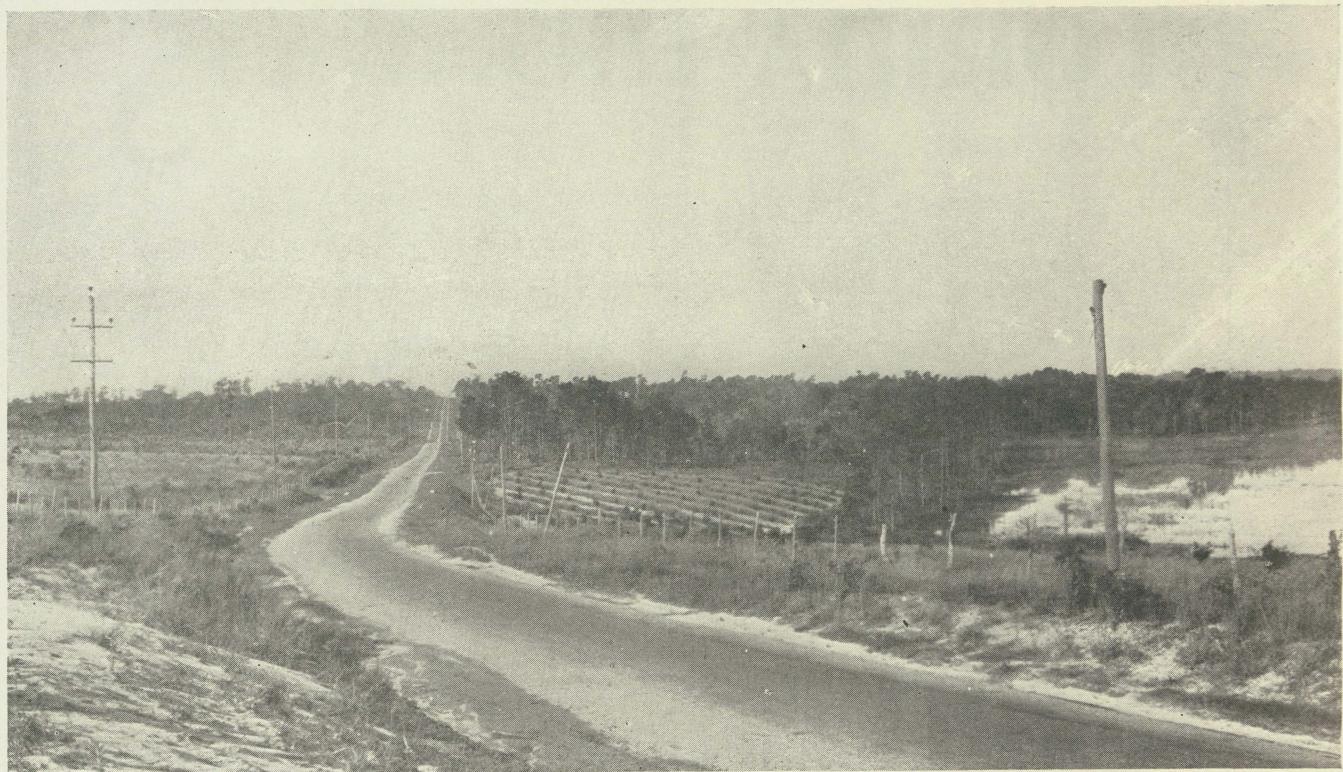
To give a better idea of the situation, it is perhaps

best in this instance to quote the exact language of the statute, which is as follows:

"Road No. 2. Extending from the Georgia State line north of Jennings, to Fort Myers, via Jasper, White Springs, Lake City, High Springs, Gainesville, Ocala, Leesburg, Lisbon, Grand Island, Eustis, Mt. Dora, Plymouth, Apopka, Orlando, Kissimmee, Haines City, Bartow, Arcadia, and Olga Bridge; also from Leesburg to Lakeland, via Mascotte, Groveland, Buck Hill, Polk City, Foxtown to Lakeland, also from Silver Lake Forks, about four miles east of Leesburg, Lake County, via Tavares to Mount Dora, said extension from Silver Lake Forks via Tavares to Mount Dora to be built with county funds and with Federal aid."

Like Road No. 1, this road is an interstate road, and over it flows, not only during the tourist season, but throughout the year, a continuous stream of traffic to and from South and Southwest and Southeast Florida. One very gratifying feature of this road is that it offers a continuous State-paved road from the Georgia State line to Leesburg, a distance of 168 miles—the longest continuous stretch of State-built paving in the State.

Contrary to a popular belief in other States, it does not lie through a flat and uninteresting country, but on the contrary offers an ever-changing and lovely scenic prospect. Through hills and lakes, comparable to those found anywhere in this country, the road pursues its beautiful course until it reaches



Road No. 2, Marion County, Project 520.

Fort Myers, the City of Palms of the West Coast. Ocular evidence of its beauty may readily be seen in the illustrations to be found in the present issue.

#### Rivers

The watercourses along Road No. 2 are fewer and much less difficult than those found on Road 1. In fact, the footage of bridges constructed on the whole road (2046) is less than that necessary for several single bridges which have been built on Road 1. Like Road 1, it crosses the famed and ever-beautiful Suwannee, and the cover picture this month is a scene by moonlight on that noted stream, near the point where the bridge spans the stream. A view of the bridge itself is also presented. Rivers over which bridges have been constructed, or are under construction, are: Alapaha, Suwannee, Dead River and Dora Canal, Big Charlie and Payne's Prairie.

#### Lakes

But if there is a scarcity of rivers of importance along the route, this is more than compensated in the glory of the lakes which the road encounters along its line. No more beautiful lakes are anywhere to be found than those along Road 2 in Columbia, Alachua, Marion, Lake, Polk and Osceola Counties. Lake and hill and orange grove and beautiful towns and hamlets contrive to make the drive one of rare and exquisite beauty. To mention any one scene of beauty would tend to emphasize that spot to the unfair and unjustified disadvantage of myriad beauty scenes.

#### Present Status of the Road

We have already pointed out that Road 2 boasts the longest continuous stretch of State-built paving in Florida. The figures for road construction on this highway are impressive. We find them as follows: 30.68 miles of concrete, 17.84 miles of bituminous concrete, 33.10 miles of sheet asphalt, 109.40 miles of rock base surface-treated, 27.58 miles of

marl, and 24.33 miles of bituminous macadam. At the present time there are under construction 18.68 miles of additional paving, while paving planned for the very near future amounts to 58.71 miles. The figure given for road under construction does not include 10.52 miles on the Eustis branch of the road, nor 15.00 miles of sheet asphalt and 14.00 miles of grade now being built on the Groveland branch. By way of recapitulation we find that there are completed 373.18 miles, while 44.40 miles are under construction, accounting for almost the entire mileage of the road by all routes. There have been constructed, as remarked above, 2,046 feet of bridges, and in addition railroad grade crossings have been eliminated in two instances by underpasses and in four instances by overhead crossings.

To be less statistical, and to give details as to the actual present status of construction, we find, as heretofore remarked, that the road is paved its entire distance from the Georgia State line to Silver Lake Forks in Lake County. There is a jump in the paving from Silver Lake Forks to Mount Dora, the road being under present construction between those points. From Mount Dora to Plymouth, there is another stretch of State-paved road, and from Plymouth via Orlando to Kissimmee, the old brick road, constructed by the counties, has been widened by the Department by the addition of shoulders, and the whole surface treated. From Kissimmee to Polk County line is again of State construction. Throughout Polk County the road was constructed by the county, but it will be rebuilt entirely by the State, and plans are now being made for its reconstruction. It might be remarked here that the Department's plans for reconstruction comprise 78.71 miles of this highway in Orange, Osceola and Polk Counties. The road is paved from the Polk County line through

Hardee County to Carlstrom Field, some of which paving, however, will be reconstructed. From Carlstrom Field to the Lee County line the construction is of marl, while Lee County paved the stretch from the Charlotte County line to Ft. Myers.

All of the Tavares branch in Lake County, from Leesburg to Tavares, is under construction at the present time. On the Groveland branch sheet asphalt paving has been completed from Leesburg to Helena Run, while from that point to Groveland it is under construction for sheet asphalt paving. From Groveland to the Polk County line the road is under grading construction and from the Lake County line to Lakeland, the road is being constructed by Polk County.

This is a great highway. It carries a huge volume of traffic at all times, not all of which reaches its terminus. Running southward through the center of the State it intersects many other great roads and affords numerous opportunities for reaching points not only in south central Florida, but to the east and west of its direct line as well. Not all of the traffic, indeed, finds its way to the west coast, but a large volume is diverted over other State roads to points on the east coast.

In fact, Road 2 might almost be called "The Main Street of Florida."

#### Old-fashioned Husband.

Gardner, experienced, able to drive wife for extra work in house.—Ad in Philadelphia Public Ledger.

#### GASOLINE TAX SMALL COMPARED TO TOLL BRIDGE CHARGES

With legislatures in session in a majority of states, each week sees one or more states increasing the gasoline tax rate. Arkansas is the latest, the rate being boosted from 4 to 5 cents. This makes four states that collect 5 cents a gallon for road purposes.

But even 5 cents a gallon is an easy toll to pay for riding on good roads. With a car going 20 miles to the gallon, your road toll would be  $\frac{1}{4}$  cent a mile, and on a 100-mile trip your toll would be 25 cents.

Compare this to the rates on the toll roads which existed in many places in the Eastern states in the last century. Three cents a mile for a wagon or carriage was the average toll, and the roads were neither gravel nor paved, but just plain dirt roads.

Or compare it to the toll on bridges, where such exist. Hundreds of motorists pay from 15 to 35 cents every day for the privilege of riding over the bridge at Hudson, Wis., although they could cross the river on a free bridge a few miles away. Yet 35 cents, the toll for a car with four people besides the driver, would be equivalent to the gas tax they would pay on a 140-mile trip in Arkansas, New Mexico, Kentucky or South Carolina.—Highway Engineer and Contractor.

#### Dempsey Tactics.

"Tho fishing is not," said Bill Daw,  
"Conducted by prize-fighters' law,  
From salmon to trout  
Most fish are put out  
By landing a hook in the jaw."



Excavating muck, stumps, and roots with drag-line before pumping embankment. Project 53-C Road No. 2 Lake County, Leesburg to Tavares. Note man with white hat by dipper in water to his waist.



# Florida Highways

Published Monthly  
Official Publication of the State Road Department

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## FLORIDA ANSWERS

By F. W. Berry, Jr., Office Engineer

In American Highways of July, 1927, there is an article, "Is your State functioning in road building in proportion to its ability and needs?"

In relation to Florida the following facts are presented. Considering the entire United States, Florida has the following rank: Population in 1926, 32nd; Area in square miles, 25th; National wealth in 1925, 34th; Basic wealth, mines, forests, farms, 1925, 37th; Total road mileage, 36th; Mileage in State System of Roads, 25th; Number of automobiles and trucks, 1926, 17th; Total receipts auto license and gasoline tax, 1926, 7th.

The last two items in the face of Florida's rank in the others clearly shows that the question propounded is being satisfactorily answered in Florida. Florida's road system is being completed rapidly and the highways that she is getting are second to none in the Nation.

The states getting the most revenue from auto license and gasoline tax ahead of Florida in their respective rank are, Pennsylvania, New York, Michigan, California, Ohio and Texas.

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Nixon, B. W., Project Engineer, Nebraska.

Swanbom, A. R., Project Engineer, Nebraska.

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Seifert, Andrew, Associate Highway Engineer, District No. 4, 410 Hamm Bldg., St. Paul, Minn.

(Editorial Note.—The above list was compiled by the U. S. Bureau of Public Roads at the suggestion of Harvey A. Hall, Testing Engineer for the Florida State Road Department. The editor regrets that though he had planned, as stated, to take the trip, circumstances have made it impossible.)



Pumping in white sand from Lake Eustis to build embankment for Road No. 2, Project 53-C, Lake County, Leesburg to Tavares. 800 feet where drag line shows is all that remains to complete rough work. Sand taking about 20 to 1 slope

## If You Are Doing Forty-Five, How Far Are You Going In A Second?—Ever Figure It Out?

### HOW FAR ARE YOU TRAVELING IN A SECOND

Miles Per Hour	Feet Per Second
10	14.66
15	22.00
20	29.33
25	36.66
30	44.00
35	51.33
40	58.66
45	66.00
50	73.33

**S**I XTY-SIX feet per second—that is the distance you are traveling every second if you are doing forty-five miles.

That is exactly the distance across the road from fence to fence.

Figures and estimates like these have vital bearing upon matters of safety on public highways in these days of high speed motor vehicles.

If you have brakes on two wheels only you can't expect to stop, according to the best records, short

of 187 feet—three times the distance across the road.

If you have four wheel brakes you may be able to stop in 124 feet—twice the distance across the road.

That is the best you can expect to do with everything in perfect order, dry road, good brakes, and everything, including yourself, in tiptop A-1 shape.

If you are going fifty miles an hour you are doing 73.33 feet every second of time and it will take you, at the best you can do, nearly a city block to get stopped. At seventy-five feet per second do you wonder that you and your car can be off the road, in the ditch, upside down, and you dead, inside of a single second?

Thousands of accidents on the highways are due to poor or mistaken judgment as to speed, how fast a car is traveling and particularly to wrong guesses as to where or in what relation your own car, another approaching car, or a train will be in one or two seconds hence.

Many drivers have a faculty amounting to almost a sixth sense when it comes to estimating almost the exact spot where two approaching cars will be at the moment of passing even though each may be passing at greatly varying speeds. The same faculty, under more difficult conditions, comes into play in preparing to pass a car ahead when another car is approaching.

(Turn to Page Eighteen)



Road No. 2 at the Alachua-Marion County Line.

## County Highway Officials Organize

**Officials Elected**

THE American Road Builders' Association has just completed the organization of a National County Highway Officials' Association, a body of local road officials representing each of the 3,070 counties in the United States. The new organization will function similarly to the American Association of State Highway Officials and will be known as a division of the American Road Builders. At its annual convention and road show, the County Highway Officials will have the advantage of the annual sessions of its parent organization.

The organization meeting was held at Washington on June 17th, at which time a constitution was adopted and officials elected. Thomas J. Wasser, supervising engineer of the Board of Chosen Freeholders, Jersey City, N. J., was elected first president. Four regional vice presidents were elected. They are: Charles E. Grubb, Wilmington County Engineer, of Newcastle County, Delaware; Edward W. Hines, Detroit, Road Commissioner of Wayne County, Michigan; John Kirkpatrick, County Judge, Wayne County (Benton), Kansas, and Stanley Abel, County Supervisor, Taft, California.

The constitution adopted resembles somewhat the code used by the American Association of State Highway Officials, and sets forth the purposes of the new association as those of standardization of county road building, maintenance and finance methods, dissemination and exchange of road information, and the stimulation of local road construction.

The need for a national organization of the sort just completed by the American Road Builders' Association through its business director, Charles M. Upham, has long been paramount in the United States. With 3,070 separate political sub-divisions constructing and maintaining highways without technical intercourse or standardization of methods, the waste of county or township funds has been inevitable. The expenditures under local agencies are approximately the same as those supervised by well-organized state departments. The roads affected are in most cases thoroughfares of a peculiar nature, being all-important to the immediate district in which they were laid, but at the same time not handling sufficient traffic to justify the construction of the more expensive modern highway. This peculiarity makes the county problem of intricate importance and emphasizes the necessity for technical standards of grading, graveling, surfacing or otherwise improving the local road. Through such an organization as Mr. Upham has brought into being, a great deal can be accomplished, both from the standpoints of efficiency and economy.

The new association will start its good work immediately. Contact men will be appointed in each county of the United States, and report to various committees that will be formed by the present group of officials. The first reports will be delivered on County Officials' Day at the Annual Convention and Road Show of the American Road Builders' Association. The latter meeting will be held at Cleveland during the week of January 9th, 1928.



Road No. 2 between Micanopy and McIntosh in Marion County.

The committees to be appointed are those on Survey and Plans, Road Type Selection, Design, Contracts and Specifications, County Highway Construction, County Highway Maintenance, Bridges and Culverts, Materials and Tests, County Highway Legislation, County Administration, Standardization of Accounts, Construction and Maintenance Equipment, Publications, County Highway Finance, Traffic, Publicity and Special Committees.

In addition to the president, and regional vice presidents, a board of directors was elected. The members are:

Elected for One Year—Charles W. Deterding, County Engineer, Sacramento County, Sacramento, Cal.; Jerry R. Zmunt, County Commissioner, Cuyahoga County, Cleveland, Ohio; J. T. Bullen, Parish Engineer, Caddo Parish, Shreveport, La.; Merl Breese, County Engineer, Luzerne County, Wilkes-Barre, Pa.; R. B. Preston, County Engineer, Norfolk County, Portsmouth, Va., and J. A. Bromley, County Road Engineer, Anne Arundel County, Annapolis, Md.

Elected for Two Years—J. L. Jones, Los Angeles County, Los Angeles, Cal.; B. W. Davis, County Engineer, Nash County, Nashville, N. C.; Otto Hess, County Commissioner, Harris County, Houston, Texas; S. A. Green, Roads Engineer, Baltimore County, Townson, Md.; R. C. Hill, County Engineer, Sussex County, Georgetown, Del.; T. D. Pendegrass, Superintendent of Roads, Durham, N. C., and T. H. Baldwin, County Engineer, Laramie County, Cheyenne, Wyo.

Elected for Three Years—H. B. Keasby, County Engineer, Salem County, New Jersey; E. A. Griffith, Chief Engineer of Roads, Allegheny County, Pittsburgh, Pa.; Charles A. Brown, Chief Engineer, Orange County, Orlando, Fla.; C. F. Winkler, Probate

Judge, Greenville, Ala.; Thos. H. Madden, County Commissioner, Trumbull County, Warren, Ohio; Geo. A. Quinlan, County Superintendent of Highways, Cook County, Chicago, Ill., and E. C. Gwillim, County Surveyor, Sheridan County, Sheridan, Wyo.

#### THE BEAUTY OF MODESTY.

The outstanding event of the year has been the superb feat of Lindbergh in making a non-stop flight from New York to Paris, and his subsequent reception in Europe. The outstanding feature of that reception—a feature that has endeared the young aviator to the whole world—was the modesty of this youth, who in a few short hours flew from obscurity into world-fame and hero-worship.

There are so much arrogance and brag in conspicuous places that the United States was doubly fortunate in having simplicity and modesty make that historic flight. Too often citizens of the United States, who visit foreign lands, by their arrogance and bluster give our friends over-seas an erroneous conception of the people who form this great North American Republic. Such unpleasant citizens are not truly representative. They often are the newly-rich. They have made money or they could not travel, but they would not have made money, generally speaking, if they had not possessed the arrogance and aggressiveness of which our friends over-seas sometimes have cause to complain. To make money, seemingly one must be what is called in North American slang, "hard-boiled."

Lindbergh has helped to change this unfortunate impression of America. He has shown the world that modesty is a virtue which blossoms in the United States as well as elsewhere.—The Earth Mover.



Road No. 2, Lake County, Project 44, between Ocala and Leesburg.

## The Rights and Liabilities of Drivers of Automobiles Which Collide With Animals Running at Large on the Highways

**I**N VIEW of the numerous previously decided cases, the law is well established with respect to the various phases of the rights and liabilities of the owner of an automobile that collides with an animal.

An important decision (209 N. W. 714) has just been handed down. It was disclosed that a dog ran directly in front of an oncoming automobile which ran over it, as a result of which the driver of the machine lost control of his car, which was wrecked, and seriously injured the occupants.

The owner of the automobile instituted legal proceedings against the owner of the dog for damages as a result of the injuries sustained. In holding the owner of the dog not liable for damages, it is interesting to note that the Court said:

"Here the dog was not shown to be vicious or mischievous. He attempted to cross the highway in front of plaintiff's automobile. He evidently misjudged the speed of the car, and paid the penalty with his death. But this does not establish the negligence of the defendants. We take common knowledge that it is the usual and common custom of farmer's dogs to run at large. There is no law restraining them, applicable to the situation here. The defendants were not with their dog, had no reason to expect the collision between the dog and the plaintiff's machine, and hence were not negligent."

In another case (209 N. W. 708), which has just been decided, the same point of the law was involved. The testimony disclosed that a horse, which was confined in a barnyard, broke through a fence and strayed upon the highway, where it was struck by an

automobile, wrecking it. The driver filed suit against the owner of the horse for damages. However, the Court pointed out that where the owner of domestic animals exercises ordinary care in confining them in a reasonably secure enclosure, and it is not proved that the owner knew or should have known that the animal may have escaped, he is not liable for damages effected by the animal which breaks from his place of confinement and strays upon the highway. In this case, the Court said:

"When applying this doctrine of negligence, it seems to be settled as a matter of law that the owner is bound to anticipate only such damages as result from the natural traits and habits of the animals, or from those unnatural traits and habits of the individual animal of which he has knowledge. As already stated, the conduct of the horse in running into the automobile in the instant case was a most unusual and unnatural occurrence. It was not the usual conduct of a horse. It was an accident not within the field of reasonable anticipation."

The Court said, further, that in litigation of this kind the vital question is whether negligence on the part of the owner of the animal is the proximate cause of the accident. And, also, that the degree of care with which the driver of the motor vehicle is driving at the time of an accident is an important consideration in determining who is responsible.

Therefore, generally it seems well settled that the owner of an animal is bound to anticipate only such injuries as may result from the natural traits and habits of the animal. And where an accident is

caused in a most unusual and unnatural manner, the law will not hold the owner of the animal responsible for injuries sustained by persons who are using a highway.

In another case where the same point of the law was involved, the Court explained that the mere fact that a domestic animal is on a highway unattended by its owner, cannot be regarded as unlawful. And unless a statute prohibits animals being on the highways, the owner is not rendered liable for injurious consequences which may happen as a result of an automobile colliding with his animal.

And where a cow, which was permitted by its owner to graze on the side of a highway, walked on the highway and was struck by an automobile, the Court held the owner of the cow was not liable for injuries sustained by the driver. The Court went into details and explained that where an animal strays onto the land of another person and effects damage, the owner of the injury-effecting animal is liable for the consequences, irrespective whether or not he is at fault in permitting the animal to stray. But where the damage is done on a highway, not the property of the person injured, the owner of the animal is not liable for the damages inflicted.

One of the most apparently clear cases against the owner of an animal, which caused an automobile wreck, is found in the records of a recent case where it was shown that, owing to an inadequate fence, carelessly maintained by the owner, sheep strayed out of a field onto a highway. When an automobile was being driven along the highway in broad daylight at fourteen miles an hour, one of the sheep suddenly dashed from the side of the road and collided with

the motor vehicle. The result was that the machine was overturned and the occupants were badly injured. In holding the occupants of the automobile not entitled to damages, the Court in effect said that the cause of the accident was either the automobile driver's fault in not exercising care to avoid colliding with the sheep, or the act of the sheep which the owner could not reasonably anticipate, and therefore the owner of the sheep was not responsible for the resultant damages under either circumstances.

However, where an animal is permitted to run wild on a highway in direct violation of a state law or a city ordinance, the owner is responsible for the damages which it causes, irrespective whether or not he knew, or should have known, that injury was likely to be effected.

For illustration in a quite recently decided case an owner, who permitted his horse to run at large on a city street, in violation of a city ordinance, was held liable for injuries inflicted when an automobile collided with the horse.

In another case where it was shown that the owner of cows permitted them to run at large on the highway, thereby causing damage to an automobile, the Court held him liable for the resultant damages, because a state law made it unlawful for the owner of domestic animals to permit them to stray upon the highway.

The Court explained in length that while an owner, generally, is not liable for damages his animals cause the users of public highways, yet where the animals are permitted to stray thereon in violation of any law, negligence on the part of the owner of the animals is presumed, and he is liable.—From *Maine Motorist*.



Sheet Asphalt Pavement, State Road No. 2, Orange County. Federal Aid Project No. 13.



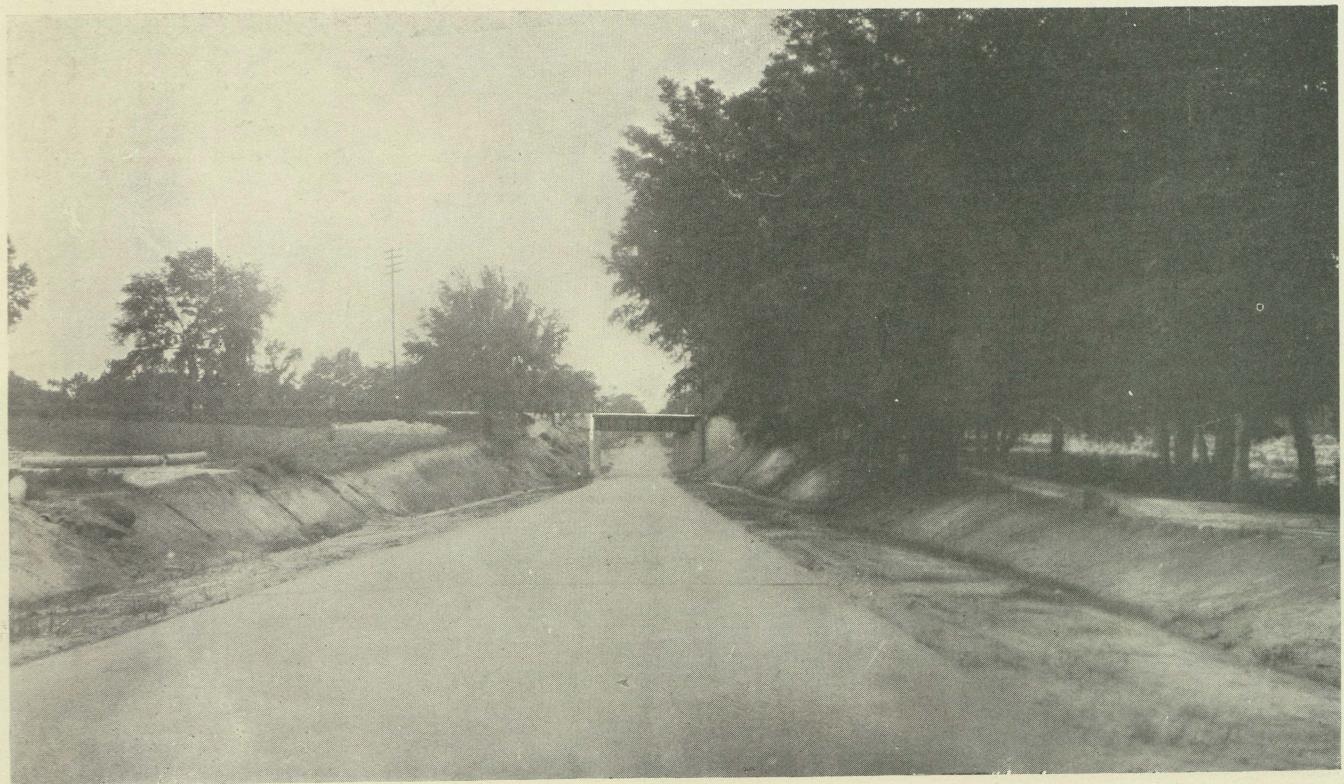
State Road No. 2. Entrance to White Springs. During the Tourist season approximately 2000 cars pass this point per day



Road No. 2. Bridge Over Suwannee River Between Hamilton and Columbia Counties at White Springs.



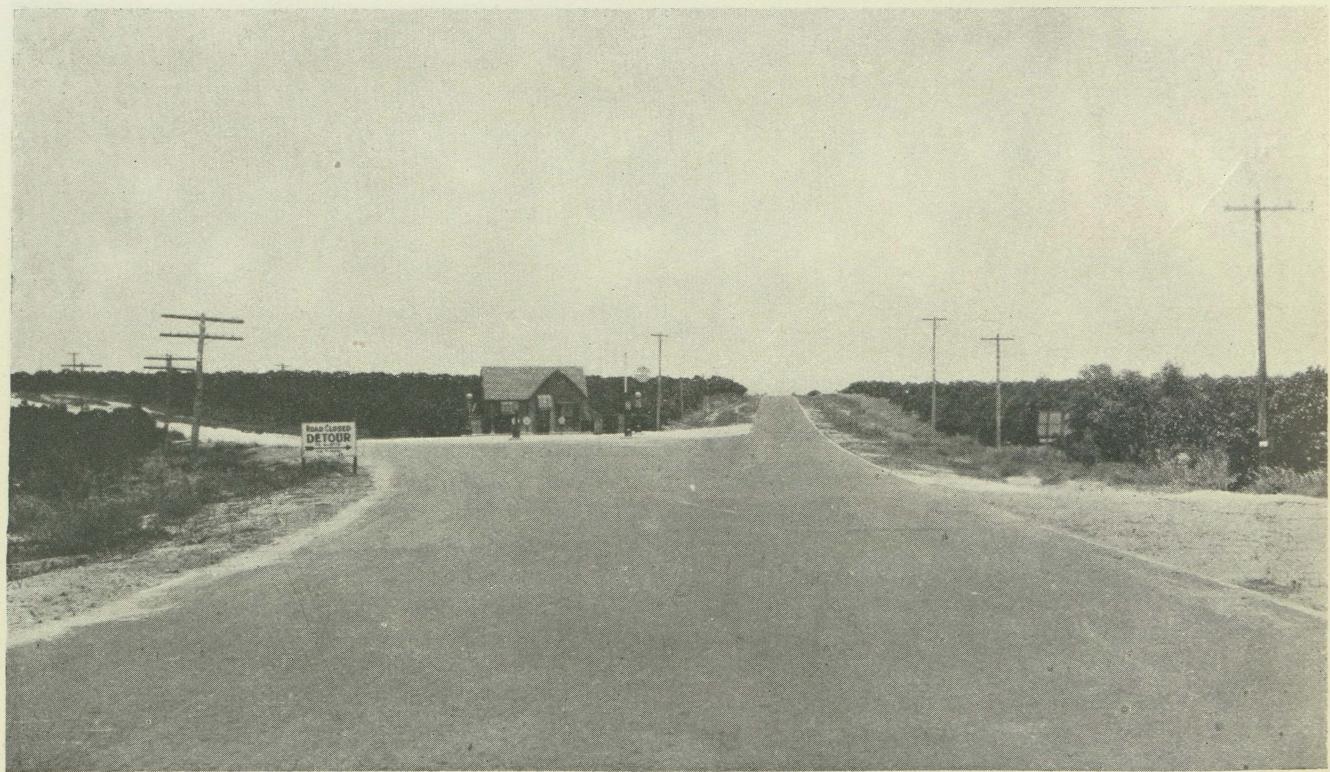
F. A. Project 26—Road 2—Looking Around Curve North of Lake City.



Underpass at Gainesville under S. A. L. R. R., Project 37-B, Road No. 2.



Road No. 2, F. A. Project 19, Hamilton County—Recently Completed Highway Through Residential Section of White Springs.



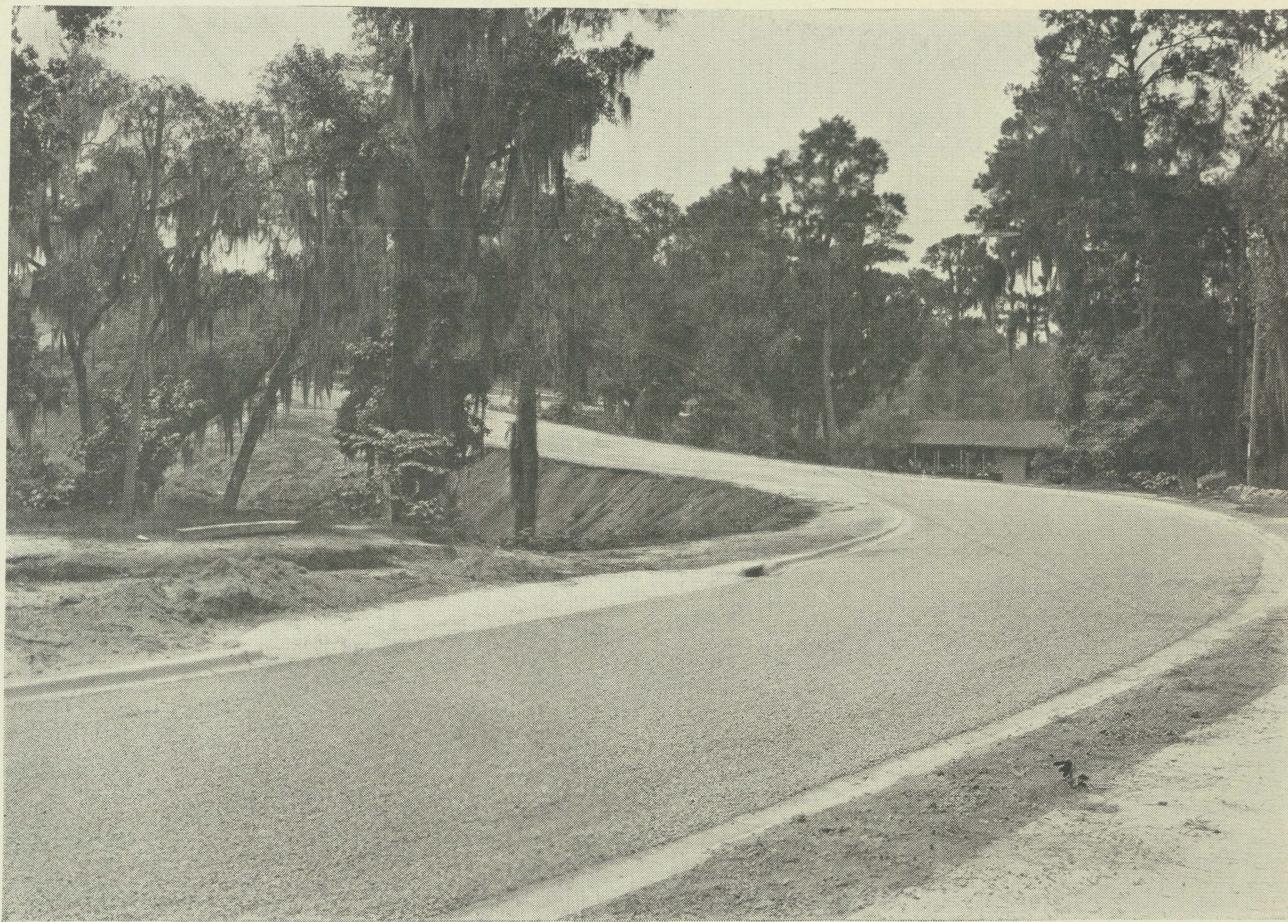
Road No. 2, Silver Lake Forks, Project 53-A and 695, Lake County, between Leesburg and Tavares and Eustis.



Road 2, Marion County, near Santos. Rock Base, Surface-treated.



Beautiful Scene on Road 2, Approaching County Bridge Over Santa Fe River.



Road No. 2, F. A. Project 19, Hamilton County, in the City of White Springs, Showing Completed Curb and Gutter and Surface Treatment of Asphalt and Slag. The Famous White Springs in the Background.

## The Place of the City in Highway Finance

By WILLIAM PARR CAPES

Director, New York State Bureau of Municipal Information, Albany, N. Y.

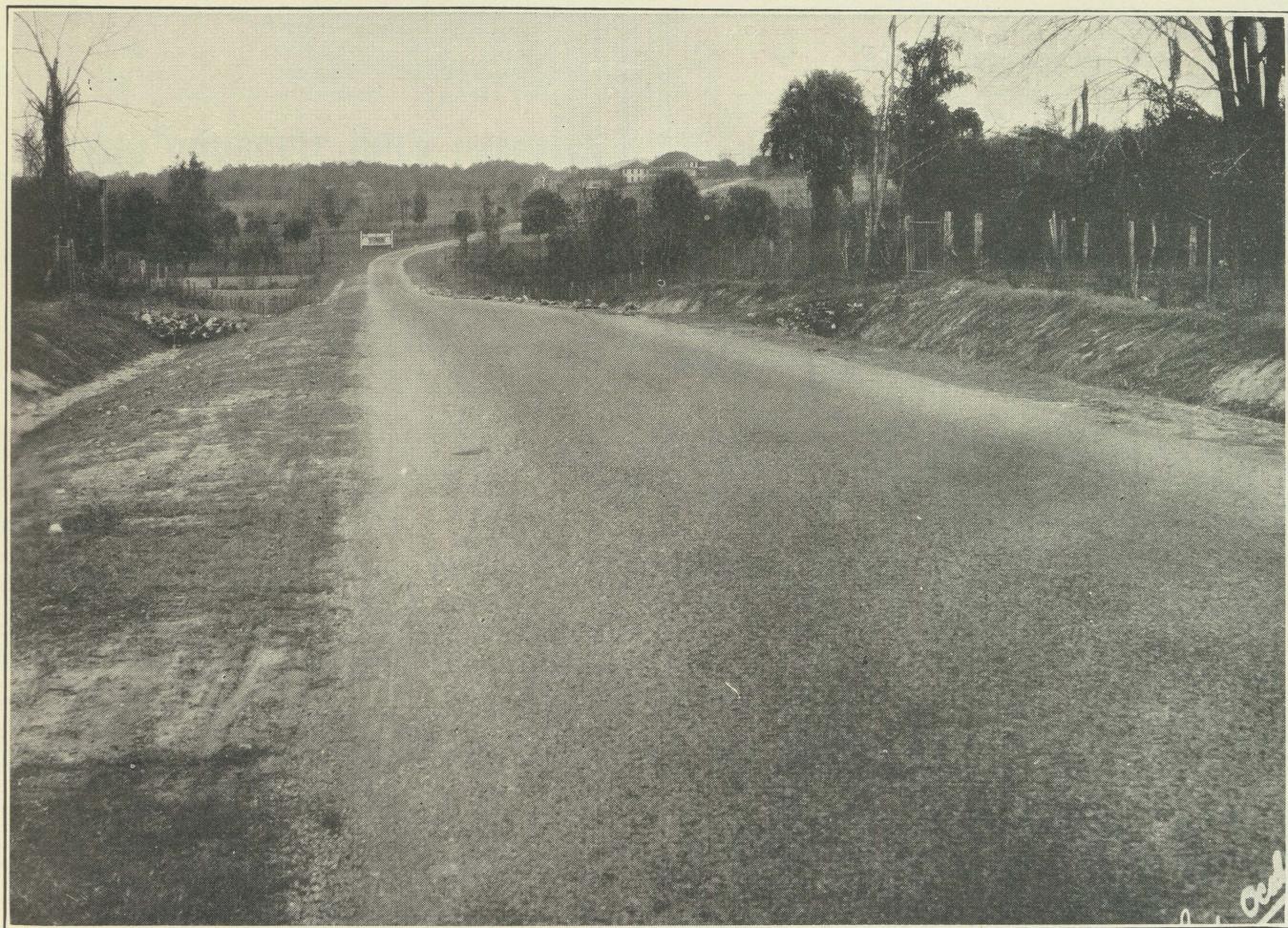
(Address before the Governmental Research Conference.)

**R**EVENUES for highway purposes are derived from direct real estate and personal property tax, motor vehicle registration fees, fuel tax and wheel tax. All States require motorists to pay a registration fee and all except four States impose a gasoline tax. The wheel tax for all vehicles is not at all general.

The specific design of the motor vehicle fees and fuel tax is to reimburse the State and local governments for the cost of regulating motor vehicle traffic and to aid in the maintenance of highways used and worn by motorists. That a large portion of the regulatory cost and highway expense is borne by local agencies which receive no share of motor vehicle receipts, the cities and incorporated villages, can not be disputed. Our records show that in only four States are grants made at the present time to cities and villages generally for use in financing street work. These States are Alabama, Ohio, Oklahoma and Wisconsin. In five other States aid is given to large cities whose boundaries are co-terminus with the county boundaries. In a few instances the State

aids large cities in other ways than by grants or refund of a fraction of the motor vehicle tax receipts. These either share in the cost of construction of highways within city limits which connect the street system with the State highway system or contribute to the cost of specified State routes passing through or on the outskirts of large cities. As a general rule all other States require the larger cities and villages to finance from their own municipal funds the pavements which are connecting links in the State highway system. In only three States do counties make a contribution out of county tax revenues to the financing of streets of large cities, though the situation is complicated in a number of instances by the merging of county with the municipal governmental organization. These three States are Florida, Arkansas and Washington.

The cities and villages contribute much the greater share of the revenues received by States from motorists, and they are compelled to spend annually considerable of their tax funds for the convenience and safety of both urban and rural motorists. The following is a summary of the services which the automobile has forced the city and incorporated village



Road No. 2 in Marion County Near McIntosh. Rock Base, Surface-treated.

to give or extend and thereby increase its municipal expenditures:

1. The automobile is scattering out urban population over a greater area, thus compelling the city to provide more paved streets, fire and police protection, street lighting, street cleaning, water and sewers.
2. Cities are now compelled to keep highways clear of snow to facilitate the movement of motor vehicles during winter.
3. The heavy truck has forced cities to pay more for street paving. Formerly a four-inch base under a pavement was sufficient. Now cities must construct a six, eight, ten and even twelve-inch base.
4. The vibration of heavy trucks is beginning to affect sewer and water mains. Some experts assert that cities will eventually have to lower their water and sewer systems.
5. To check or prevent an increase in claims for damages to motor vehicles, cities are now compelled to keep their pavements in much better repair than when horse drawn vehicles prevailed.
6. The motor vehicle has compelled cities to provide more substantial and costly pavement to overcome the wear and tear of automobile chains in winter; also more substantial and wider bridges to accommodate heavy trucks.

7. Police departments have had to be increased greatly to regulate traffic and parking for the convenience and safety of motorists.
8. Cities are now being compelled to provide parking space, other than on the highway; also to widen streets to accommodate increasing traffic.
9. The activities of the automobile thief have greatly increased the work of city police departments.
10. City streets must now be better lighted than heretofore for the safety and convenience of motorists.

For all of these new or increased municipal services, made necessary by the automobile, the taxpayer who owns a motor car pays no more in municipal taxes for the benefits received than does the person who does not own an automobile.

In 1925 the special joint committee on taxation and retrenchment of the New York State Legislature, assisted by the cities, made a study of what the motor vehicle is costing the cities. In its report to the Legislature this committee said:

"An analysis of municipal expenses related to motor vehicle transportation shows that the upward trend of municipal costs is particularly marked where motor traffic touches city activities. An examination of the proportion of police appropriations devoted to traffic squads disclosed an increasingly heavy burden of expense upon the cities for which no recompense in motor fees is received. With no



Lime Rock Base on F. A. Project 31, Road No. 2, Near Jasper, Hamilton County.

appropriation for traffic squads in 1903 the proportion of police expenditures devoted to this item rose from 6.33% in 1913 to 12.7% in 1918, while the 1923 proportion is over two and one-half times the 1913 figures, or 16.03%.

"An examination of the municipal debt of seven cities shows that in 1913 the average proportion of indebtedness incurred for street improvements out of the total debt was 18.68%. The proportion rose to 23.85% in 1918 and to 26.19% in 1923. The proportionate rise can hardly be explained on any grounds other than the impetus to street paving arising from the demand of motorists.

"The effect of motor vehicles, particularly trucks, is nowhere quicker reflected in municipal costs than in the expenses for street repairing. The average increase for the seven typical cities for the twenty years, 1903-1923, is indication of a greater paved area, higher paving costs as well as the intensive wear on pavements by motor traffic. Dividing the increase into two periods, 1903-1913, and 1913-1923, discloses that the major share of the increase has occurred in the period when motor vehicles attained extensive use. From 1903 to 1913, when horse-drawn vehicles formed the bulk of road traffic, the rise in repairing costs was 100%. During the following decade, however, when the motor had largely displaced the horse, the increase was very much greater.

"The demand for improved street lighting has arisen in part from the needs of motorists. While the current appropriation for street lighting in the

seven cities examined arose 124.89% from 1903 to 1923, the bulk of the increase again was centered in the decade when the use of motor vehicles became wide. The rise for this period was 90.58% in contrast to an increase of 38.68% for the preceding ten years.

"In many cities the arrests caused by violations of traffic regulations, theft of motor vehicles or other cause incident to vehicles, constitute a fourth of the total number; in few cities does it fall below 10%."

Studies made by the Bureau show that in New York State nearly one-half of the city tax dollar is now used for education and highway purposes and that these two activities are responsible for most of the increase in the cost of city government and in city indebtedness. State aid for education is general, but as yet there is very little State aid for the construction and maintenance of city highways. Traffic regulations, snow removal, and the construction and maintenance of highways are no longer strictly local. How these activities are conducted in a single city or village is now of State and national concern owing to the great amount of tourists and through truck traffic. It is just as important to the owner of a truck or to a tourist that highways within city limits be constructed and that they be maintained, properly regulated and kept open in the winter as main arteries of travel outside of city limits. Yet of the millions of dollars autoists pay annually in license fees and fuel tax to most of the States, not one penny is or can be spent within city or village limits.

(Turn to Page Eighteen)

Jack Camp, E. F. Fitch, Clarence Camp,  
President. Vice-President. Sec. and Treas.

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O Lord, for all I done to-day  
To cause annoyance and delay  
To make a person rant and rave,  
For all wrong numbers I have gave  
And gave and gave when I'd be cryin'  
For five three seven, thrree seven ni-yun,  
For all the needless irritation  
When I cut off a conversation,  
The cusses—calls for information  
Because of me—the slaps and slams,  
The smashed receivers—darns and dams  
I've caused this day—O Lord, for these  
And all my sins,  
Excuse it, Please!

—Oliver Herford in Life.

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When you require a contract bond,  
insist that we write it and you will be  
well and promptly served.

## IF YOU ARE GOING FORTY-FIVE.

(Continued from Page 5)

ing from in front. The value of this sense or faculty, whatever it may be, lies in so timing speed that without conscious effort the point of passing is managed so that three cars are not passing at the same instant. When this sense or faculty fails to function properly when both a car and a railroad train are approaching a crossing at the same time, a tragedy results.

Study the table at the head of this article—get the figures for 20, 30 and 40 miles per hour in mind—then practice estimating how long it takes you to reach, for instance, a railroad crossing or a dangerous turn. You will probably be astonished at how quickly you approach such points and how quickly things may happen when you are doing just thirty miles per hour.—Iowa Service Bulletin.

## THE PLACE OF THE CITY IN HIGHWAY FINANCE.

(Continued from Page 16)

It may be argued that the ability of the city to pay for highway construction and repair is greater than that of the rural districts. This may or may not be true. It depends upon local conditions. We must consider in connection with this problem not only the ability but also the power of local units to provide the necessary revenue. In New York State over one-half of the cities and all of the incorporated villages either have a constitutional or statutory limitation on the amount of money they can raise in any one year for municipal purposes. The cost of services and improvements which the automobile has forced upon municipalities is increasing much more rapidly than is the taxing power of these political units. Add to this the increasing demands for other municipal improvements and services, such for example as public recreation and the elimination of grade crossings, and one does not have to tax his imagination to realize that cities either must have State aid for highway purposes or the motorist, even though he pays a State registration fee and a State gasoline tax, will receive less service and fewer benefits.

Twelve States, including New York, have encroached upon local revenue by exempting motor vehicles from taxation as personal property. It has been estimated that if New York State motorists were required to pay this tax, the revenue would amount to almost as much as they are now paying in registration fees. Because of a similar exemption in Iowa, the Bureau of Municipal Research of Des Moines states that that city is deprived of about \$15,000,000 of taxable property. This presents another very important reason why in these twelve States at least cities and villages should receive a share of the automobile revenue.

On what percentage of the total revenue received by the State should be returned to the cities and villages, I am not as yet prepared to venture an opinion. The special joint committee on taxation and retrenchment of the New York State Legislature has recommended that 25% be returned to "remedy the present discrimination against cities and villages to provide an off-set against local revenues lost from the elimination of motor vehicles from the property tax base, and to assist localities in meeting increasing expenses caused by motor traffic." In the last report of the Highway Research Board of the Na-

tional Research Council the committee which investigated the urban aspects of highway finance states it is impossible to estimate with any reasonable degree of accuracy until more detailed statistics are made available what proportion of the tax on urban highway expenditures is properly to be charged to motor vehicles.

In solving this problem the needs of three groups must be considered—the rural taxpayers, the city taxpayers and the motorist. It can not be disputed that the rural districts are in need of and entitled to State aid for highway purposes, probably somewhat more than are the urban districts because of the fact that rural highways are now used almost exclusively for motor vehicle traffic while the city streets are used for pedestrian, street railway, horse-drawn as well as motor vehicle traffic. Nevertheless the city and incorporated village has a just claim for a fair share of the revenues received from motorists. To protect the interest of motorists all State aid for urban districts should be safeguarded by provisions of law that the moneys received shall be used only for highway purposes, snow removal and traffic regulation.—Municipal and County Engineering.

## THE TEN COMMANDMENTS OF MOTORDOM

BY IRA L. WOOD.

- 1 Thou shalt not envy thy neighbor's car, lest thine own become offended and stall with thee upon the highway.
- 2 Thou shalt not use profane language when changing tires, lest thy wife reprove thee and speak not unto thee for many days.
- 3 Thou shalt not argue with an officer, but answer him aye and nay, lest evil befall thee and cause thee the loss of many shekels.
- 4 Thou shalt not race a train to a crossing, lest thy spirit leave thee and thy body be taken to a morgue.
- 5 Thou shalt not hog the road, lest he that is of quick temper bend the fenders of thy car and blacken thine eyes, and make thee the laughing stock of thy neighbor.
- 6 Thou shalt not speed, neither shalt thou run thy car with its cut out open, lest the minions of the law overtake thee and put thee within a calaboose, and feed thee upon bread and water for the remaining days of thy life.
- 7 Thou shalt not signal right and turn to the left, lest pain and suffering befall thee and thy body become a carving block for the physicians.
- 8 Thou shalt not draw up to a curb and toot thy horn unseemingly, neither for thy wife or thy neighbor's wife, nor for his daughter or the handmaiden that dwelleth within his gates, lest they that loveth peace and quiet fall upon thee and slay thee.
- 9 Keep thine eyes on the curves of the road, and not upon the curves of the flapper who is beside thee or who walketh upon the highway, lest a tree or a pole arise and smite thee and utterly destroy thee and thy car forever.
- 10 Honour thy car and its engine and give unto them the care and attention that they need, that thy days in the land of motoring may be many and full of happiness.

—Arizona Highways.

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# Contracts Awarded by State Road Department

## January 1st, 1927, to August 12th, 1927

Contractor—	Project No.	County—	Length Miles	Length Feet	Contract Plus 10%	Type
Noonan-Lawrence	54	Leon	13.00		\$ 385,297.67	Concrete
Higgison Const. Co.	59	Leon-Jefferson	9.10		266,053.37	Concrete
Duval Engr. & Contr. Co.	54-A & 58	Leon-Jefferson	12.53		264,524.48	R. B. S. T.
Manley Construction Co.	53-A	Lake	7.10		249,034.28	Asph. Concrete
W. J. Bryson Paving Co.	52	Escambia	10.089		241,904.49	C. G. & G.
Boone & Wester	677-C	Levy	10.16		224,345.88	C. G. & G.
Thompson & Moseley, Inc.	677-D	Levy	7.58		66,017.34	C. G. & G.
Lake Worth Const. Co.	683-C	Palm Beach	8.27		44,290.95	C. G. & G.
B. Booth & Co.	687-B	Lake	15.22		89,496.93	C. G. & G.
C. T. Dawkins	50-A	Putnam		120.0	22,243.32	Conc. Overhead
Okeechobee Const. Co.	655-667	Highlands		815	50,006.45	Timber
C. H. Turner Co.	697	Escambia		488	22,911.53	Timber
Duval Engr. & Contr. Co.	571	Madison	14.26		47,190.03	S. T.
Langston Const. Co.	660	Clay	10.52		33,538.07	S. T.
H. E. Wolfe	48	St. Johns	15.39		371,253.82	R. B.
Nelson Brothers	694	Martin	8.48		275,185.30	Concrete
Johnson, Drake & Piper	693	St. Lucie	8.93		312,662.92	Concrete
Concrete Steel Bridge Co.	665	Clay		1,400	208,167.96	Concrete
Concrete Steel Bridge Co.	664	Clay		1,600	236,366.90	Concrete
Royce Kershaw, Inc.	640-B	Martin		131	32,201.40	Concrete
F. M. Stuart & Co.	40-B	Brevard		108	40,149.91	Concrete
Langston Construction Co.	641	Palm Beach	9.67		188,279.21	R. B.
Samuel Vadner	695	Lake	10.50		63,734.69	C. G. & G.
Tampa Sand & Shell Co.	695	Lake			63,368.28	Hyd. Fill
R. C. Huffman Const. Co.	669-D	Dade	12.30		382,038.36	C. G. & G.
Deen, Yarborough & Ebersbach	685	Franklin	17.43		159,980.86	C. G. & G.
Wm. P. McDonald Const. Co.	648	Hardee	7.14		24,075.97	S. T.
L. M. Gray	676-A-B	Levy	24.35		80,637.57	S. T.
West Construction Co.	614	Sarasota	17.34		483,586.35	Bit. Conc.
Manley Construction Co.	687-A	Lake	15.00		436,551.76	Sheet Asph.
M. C. Winterburn, Inc.	543	Seminole	14.20		405,296.30	Bit. Mac.
Wm. P. McDonald Const. Co.	648	Hardee	6.36		123,804.83	R. B. S. T.
Duval Engr. & Contr. Co.	659	Clay	2.80		49,310.97	R. B. S. T.
C. A. Steed & Sons Co.	668	Brevard	13.45		373,640.32	R. B. S. T.
Stidham & Hughes	564-C	Charlotte	3.93		81,173.55	R. B. S. T.
H. L. Clark & Sons Co.	676-C	Levy	15.01		227,110.22	R. B. S. T.
F. X. Bradley & Co.	573-D	Orange	16.81		95,642.25	C. G. & G.
C. A. Henderson	713	Columbia	10.00		85,284.71	C. G. & G.
James Betteridge	41-B	Dade		88	42,387.84	Concrete
Peterson & Earnhart	698	Leon		400	34,773.06	Concrete
Peterson & Earnhart	699	Jefferson		300	27,441.17	Concrete
John J. Quinn, Inc.	641	Palm Beach	1.00		52,494.31	S. T.
Bd. Co. Commrs., Taylor Co.	745	Taylor	14.00		12,320.00	C. & G.
Finlayson & Morris	747	Jefferson	6.50		40,566.79	C. G. & G.
C. S. Maulsby	694	Martin			10,780.00	Protection
Kibbey Engineering Co.	663-679	Citrus-Hernando	15.00		19,145.28	Guard Rail
Alexander, Ramsey & Kerr	669-E	Dade	4.27		205,700.00	C. & G.
Langston Const. Co.	522	Nassau	4.06		43,394.76	R. B. S. T.
W. J. Bryson Paving Co.	593	Manatee	0.66		12,058.22	Bit. Conc.
E. W. Parker	589	Lee		313	43,942.63	Concrete
Murphy & Pryor	691	Indian River		285	60,594.05	Conc. Overhead
Hayes & Kroeger	687-A	Lake		120	18,264.37	Conc. Overhead
E. W. Parker	614	Sarasota		165	50,330.50	Conc. Bridge
E. W. Parker	614	Sarasota		150	61,320.42	Conc. Bridge
E. W. Parker	614	Sarasota		130	53,530.89	Conc. Bridge
E. W. Parker	614	Sarasota		130	68,210.17	Conc. Bridge
Cone Bros. Const. Co.	49	Flagler	13.81		252,196.06	R. B. S. T.
Fowler & Banko, Inc.	691	Indian River	5.52		165,364.35	Concrete
Fowler & Banko, Inc.	692	St. Lucie	7.38		229,002.48	Concrete
General Const. Co.	41-B	Dade		132	40,529.06	Conc. Bridge
F. X. Bradley & Co.	716	Bradford	11.12		57,024.85	C. G. & G.
F. X. Bradley & Co.	717	Bradford	10.93		85,834.62	C. G. & G.
L. M. Gray	50-B	Putnam	9.77		158,820.99	R. B. S. T.
N. C. Cash	50-C	Putnam	10.03		178,026.92	R. B. S. T.
C. R. Scott	619	Alachua	9.28		134,370.72	R. B. S. T.
Higgison Const. Co.	6	Madison	5.45		47,471.46	C. G. & G.
W. J. Bryson Paving Co.	55	Alachua	16.77		142,280.00	C. G. & G.
Harrison & Estes	697	Escambia	.14		9,013.01	C. G. & G.
Franklin Const. Co.	706-A	Putnam	12.09		83,567.57	C. G. & G.
W. J. Bryson Paving Co.	714	Union	10.20		67,006.89	C. G. & G.
Sellers Const. Co.	715	Union	3.20		20,752.62	C. G. & G.
Little & Lee, Contractors	742	Alachua	7.65		39,762.96	C. G. & G.
Johnson, Drake & Piper	680	Bay		4,000	829,392.71	Conc. & Steel
Johnson, Drake & Piper	681	Bay		7,530	1,119,966.46	Conc. & Steel
F. W. Simpson	764	Suwannee	12.00		55,773.19	C. G. & G.
F. W. Simpson	765	Suwannee	7.00		30,428.89	C. G. & G.
Duval Engr. & Contr. Co.	677-A	Levy	6.96		88,648.38	R. B. S. T.
W. J. Bryson Paving Co.	53-B	Lake		570	96,431.98	Conc. Bridge
C. G. Kershaw Contr. Co.	719	Suwannee	8.57		40,355.35	C. G. & G.
Amer. Bascule Bridge Corp.	53-B	Lake			16,471.40	Bascule
Nashville Bridge Co.	685-B	Franklin		120	16,183.45	Steel Span
N. B. Burton	677-D	Levy	3.05		15,827.95	C. G. & G.
Carl Fay	668-B	Brevard			7,326.00	C. G. & G.
Peterson & Earnhart	698-B	Leon		119	4,689.08	Overhead Tmbr

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Doctor—"I'm sorry, but I can't cure your husband's talking in his sleep."

Wife—"Can't you give him something to make him talk more distinctly?"—Cornell Widow.

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## Southern Clay Manufacturing Company

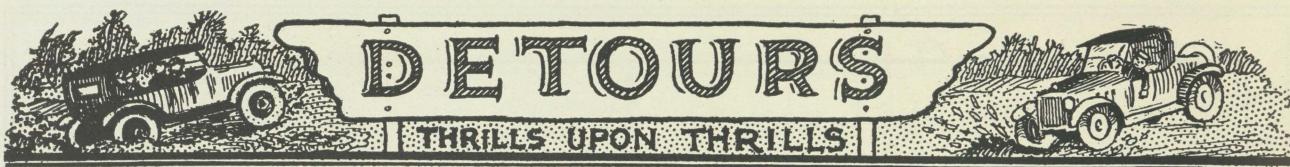
Chattanooga

Tenn.

Makers of Paving Brick for 35 Years

Plants

Robbins, Tenn., Coaldale and N. Birmingham, Ala.

**Hopping Runs in the Family.**

Mrs. Evangeline Lindbergh stopt across the temporary White House late this afternoon.—Washington dispatch in the New York Herald Tribune.

**True Sporting Spirit.**

The sad-looking man at the corner table had been waiting a very long time for his order. At last a waiter approached him and said:

"Your fish will be coming any minute, now, sir."

"Oh, yes," said the sad man, looking interested. "And what bait are you using?"—Sanford Chaparral.

**Lo on the Warpath.**

Chief Eagle Feather, the Indian owning the Oookomis Indian Reservation, wishes to announce that the charges of maintaining a nuisance, and the propaganda originating from same is false. As for padlocking of the Council House Pavilion, there is no law in the State of Indiana prohibiting dancing, and the pavilion will be open as usual. The public is invited—but tie your mule on the outside.

Since I have owned the Indian Reservation, I have been bawled out, held up, held down, bull-dozed, black-jacked, walked on, cheated, squeezed and mooched.

I have been struck for war tax, poll tax, auto tax, road tax, gas tax, dog tax, and syntax, liberty bonds, baby bonds and bonds of Matrimony, red cross, green cross, and the double cross; asked to help the W. C. T. U., Y. W. C. A. and Y. M. C. A., boy scouts, Riley Memorial, Society of John the Baptist, G. A. R. Women's Relief corpse, Men's Relief and Stomach Relief.

Princess Silver Heels and I with our attorneys will leave for Indianapolls to-day where we will confer with State's attorneys.—Brown County (Ind.) Democrat.

**Face the Music.**

"I would be glad," said the clergyman, after he had given out the text for his sermon, "if the young man who is standing outside the door would come in and make absolutely certain whether she is here tonight or not. That would be a great deal better than opening the door half an inch or so and thereby exposing the necks of the people in the back row to a current of cold air."—Epworth Herald.

**Water-Works.**

"What is the greatest water-power known to man?"

"Woman's tears."—Tawney Kat.

**Lawless Reptile.**

Cop Plays St. Patrick,  
Rids Banana Car of  
Snake with Shotgun  
—Springfield (Mass.) paper.

**'Sh' Allri'**

PROHIBITION GRMAN, SAYS FORD TO WORKINGEATEST BOON  
—Head-lines in the Pittsburg Press.

**Not When We Went to Sunday School.**

"Slim" is clean-looking. He is a young Joseph who with his slingshot slew the mighty Goliath.—Kansas City Star.

**Ambition up to Date.**

First Partner—"In what position does your son wish to enter the business?"

Second Partner—"Well, so far as I can make out, he wants to start near the top and loaf upwards."—London Punch.

**Make It Unanimous.**

Artist (to friend)—"See that picture over there? Well, I painted it, and a million wouldn't buy it!"

Friend—"Well, I'm one of the million!"—Ohio State Sun Dial.

**Perfect Alibi.**

There was a timid knock at the door. "If you please, kind lady," said the beggar, "I've lost my right leg—"

"Well, it ain't here!" retorted the woman of the house, as she slammed the door.—Nash Journal.

**"Scots Wha Hae."**

"How about a little remuneration for my efforts?" the vagrant minstrel asked.

"Sure thing," the Scotchman replied. "What do you want me to sing?"—Texas Ranger.

**Sweet Revenge.**

Mrs. A.—"That woman next door bought a hat exactly like mine."

Husband—"And now I suppose you won't speak."

Mrs. A.—"Not after she finds I've given mine to her cook."—Boston Transcript.

**Pack Up Your Troubles.**

\$800 buys 15 acres, horse, young cow just fresh, heifer, 75 chickens, acre garden and potatoes, bearing orchard, farm and garden tools, 5-room house all furnished, barn and hen houses, wife in hospital, \$800 takes all.—Albany Knickerbocker Press.

**Lingering Golden Age.**

She—"Which do you think are the most interesting years of a woman's life?"

He—"The first two or three years that she is twenty-one!"—Everybody's Weekly (London).

**Save the Soap.**

Teacher—"What is the 'Order of the Bath'?"

Kid—"Pa first, then Ma, then us kids, and then the hired girl."—Life.



F A P 245 (Morgan County, near Rutledge)  
2½ miles, 26,000 sq. yds. of 3-inch Penetration  
Slag Macadam; laid 1926 by Brittain Constr.  
Co. (Atlanta); this road is on main highway  
between Augusta and Atlanta.



### Bituminous Slag Macadam

Over 500 miles of this type in  
Georgia, Alabama and Florida

A few months ago this was an old worn  
gravel road. Then the Georgia Highway  
Dept. reshaped and compacted the clay  
gravel base with a ten-ton roller. On top  
of this they laid a three-inch Penetration

**"ENSLEY & ALA CITY"**  
**BASIC SLAG**  
CRUSHED & SCREENED

Macadam wearing surface—and today it's a  
modern, hard surface road carrying heavy  
automotive traffic between Augusta and  
Atlanta.

Highway officials in Georgia have surfaced  
many miles of gravel roads. The result, uni-  
formly, has been a sturdy, serviceable road  
at a very low cost. In three Southern states  
alone (Alabama, Georgia and Florida), over  
500 miles of highways of this type have  
been laid in past eight years.

**BIRMINGHAM SLAG CO.,**  
Slag Headquarters for the South  
Atlanta      Birmingham      Jacksonville,  
Thomasville      Montgomery      Ocala, Fla.

### For Permanent Culverts Shearman Reinforced Concrete Culvert Pipe

Cannot Rust Out or Wear Out



Meets all State Road Dept. Specifications  
**The Shearman Concrete Pipe Co.,**

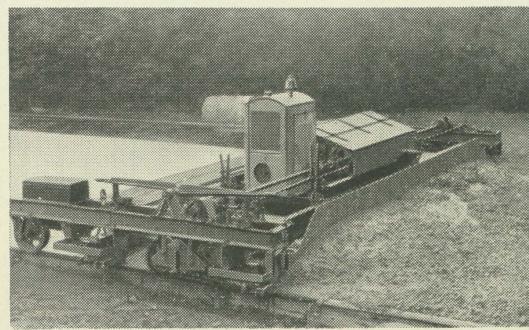
Incorporated

Florida Plants

Jacksonville      Lake Worth      Tampa  
Bartow              Sarasota

Write or wire the nearest plant for prices.

### There is an ORD for EVERY Concrete Road Finishing Job



For roads from 9 feet to 30 feet wide. For finish-  
ing the full width, for half the road or for adding  
a strip to an existing road.

And on the level, on grades and around curves,  
the result is always the same. A road finished on  
time, without a bump or a bubble—the road that  
satisfies the engineer and inspector and makes a  
profitable job for the contractor.

Ask us how it is done everywhere that concrete  
roads are built. Write today.

**A. W. French & Company**

Manufacturers of the ORD Concrete Road Finisher  
8440 Lowe Avenue      Chicago, Ill.

# Status of Construction

THROUGH JUNE 30th, 1927.

Proj. No.	Contractor	Road No.	County	Total Length Miles	Clearing Miles	Grading Miles	Base Miles	Surface Miles	Type	Per Cent Complete	
47	J. B. McCrary Engr. Corp.	4	St. Johns	14.96	.....	.....	.....	12.23	Cone.	79.00	
48	H. E. Wolfe	4	St. Johns	15.39	.....	.....	15.94	2.39	S.T.R.B.	85.00	
49	Cone Bros. Const. Co.	4	Flagler	13.82	.....	.....	1.38	0.00	S.T.R.B.	8.00	
50-A	Boone & Wester	14	Putnam	6.19	6.19	6.19	.....	.....	Graded	100.00	
50-C	E. Roy James	14	Putnam	10.03	10.03	10.03	.....	.....	Graded	100.00	
52	W. J. Bryson Paving Co.	1	Escambia	10.09	6.03	3.01	.....	.....	Graded	35.00	
53-A	Manley Constr. Co.	2	Lake	7.10	.....	.....	7.11	5.54	Bit. Conc.	96.00	
53-C	Tampa Sand & Shell Co.	2	Lake	1.87	1.83	1.72	.....	.....	Graded	85.00	
54	Noonan-Lawrence	1	Leon	13.00	.....	.....	.....	6.89	Cone.	50.00	
58	Duval Engr. & Contr. Co.	1	Leon-Jefferson	12.53	.....	.....	12.53	6.26	S.T.R.B.	86.00	
59	Higgison Construction Co.	1	Jefferson	9.10	.....	.....	.....	9.10	Cone.	96.00	
502	State Convict Forces	10	Gulf	6.94	.....	Not	Reported	.....	S.T.R.B.	.....	
543	M. C. Winterburn, Inc.	3	Seminole	14.20	.....	.....	5.39	0.00	Bit. Mac.	35.00	
564-C	Stidham & Hughes	5	Charlotte	4.11	.....	.....	4.11	1.03	S.T.R.B.	86.00	
573-D	F. X. Bradley & Co.	2	Orange	16.81	16.81	12.61	.....	.....	Graded	77.00	
580	State Convict Forces	19	Dixie	16.50	16.50	16.50	15.50	14.00	S.T.R.B.	93.00	
587	C. G. Kershaw Const. Co.	5-A	Columbia	4.38	4.38	4.34	.....	.....	Graded	97.70	
592	U. S. Fidelity & Guaranty Co.	10	Franklin	7.89	7.49	7.10	.....	.....	Graded	92.00	
614	W. J. Bryson Paving Co.	5	Sarasota	17.34	17.07	15.51	.....	.....	Graded	95.00	
614	West Construction Co.	5	Sarasota	17.34	.....	.....	5.37	0.00	Bit. Conc.	16.00	
619	J. L. Gladwell	5	Alachua	9.28	9.28	9.28	.....	.....	Graded	100.00	
621	Penton-Mathis Const. Co.	1	Okaloosa	19.70	19.70	19.50	.....	.....	Graded	99.00	
623	State Convict Forces	35	Madison	12.91	12.91	12.91	.....	0.00	S. Clay	81.20	
635	W. J. Bryson Paving Co.	5	Manatee	.....	.....	.....	.....	1.28	Bit. Con.	100.00	
640-A	S. J. Groves & Sons Co.	4	Martin	9.00	9.00	8.91	.....	.....	Graded	98.00	
640-B	Lake Worth Const. Co.	4	Martin	11.80	11.80	6.02	.....	.....	Graded	68.80	
641	Langston Const. Co.	4	Palm Beach	11.90	.....	.....	8.33	0.00	S.T.R.B.	75.00	
648	Wm. P. McDonald Const. Co.	2	Hardee	6.36	.....	.....	7.14	5.00	S.T.R.B.	97.00	
651	State Convict Forces	10	Gulf	14.72	.....	Not	Reported	.....	S.T.R.B.	.....	
653	H. D. Spangler	4	Broward	13.46	12.11	6.73	.....	.....	Graded	73.70	
657	State Convict Forces	6	Jackson	10.00	10.00	9.50	.....	9.00	S. Clay	90.00	
659	M. C. Winterburn, Inc.	3	Clay	13.27	13.27	9.29	.....	.....	Graded	83.00	
660	Duval Engr. & Contr. Co.	3	Clay	2.80	.....	.....	2.80	2.80	S.T.R.B.	100.00	
668	Langston Const. Co.	3	Clay	10.52	.....	.....	10.52	10.52	S.T.R.B.	100.00	
669-C	C. A. Steed & Sons Co.	4	Brevard	13.45	.....	.....	4.71	0.00	S.T.R.B.	29.40	
669-D	R. C. Huffman Const. Co.	27	Dade	12.00	9.60	6.00	.....	.....	Graded	55.00	
669-E	R. C. Huffman Const. Co.	27	Dade	12.30	6.15	2.46	.....	.....	Graded	20.00	
669-W	Alexander, Ramsey & Kerr, Inc.	27	Dade	4.29	4.29	3.00	.....	.....	Graded	70.00	
671	State Convict Forces	27	Collier	15.40	12.13	12.13	12.13	0.00	S.T.R.B.	80.00	
671	State Convict Forces	20	Jackson	4.07	4.00	3.25	.....	.....	Graded	80.00	
673	State Convict Forces	1	Gadsden	14.87	14.87	14.59	.....	14.00	S. Clay	98.00	
676-B	L. M. Gray	19	Levy	14.39	.....	.....	14.39	9.50	S.T.R.B.	90.00	
676-C	Langston Const. Co.	19	Levy	15.02	15.02	14.57	.....	.....	Graded	98.00	
676-C	H. L. Clark & Sons Co.	19	Levy	15.02	.....	.....	7.66	0.00	S.T.R.B.	39.00	
677-B	Coastal Const. Co.	19	Levy	11.58	11.12	9.26	.....	.....	Graded	90.00	
677-C	Boone & Wester	13	Levy	10.16	9.14	2.02	.....	.....	Graded	45.00	
677-D	Thompson & Moseley, Inc.	13	Levy	7.58	7.20	3.79	.....	.....	Graded	75.00	
683-C	Lake Worth Const. Co.	4	Palm Beach	8.27	7.86	4.88	.....	.....	Graded	68.00	
685	Deen, Yarborough & Ebersbach	10	Franklin	17.43	12.92	6.09	.....	.....	Graded	43.90	
687-A	Manley Const. Co.	2	Lake	15.00	.....	.....	13.50	0.00	S. Asph.	45.00	
687-B	B. Booth & Co.	2	Lake	15.22	15.22	14.18	.....	.....	Graded	90.87	
691	Mason Payne Co., Inc.	4	Indian River	5.52	5.52	5.52	.....	.....	Graded	100.00	
691	Fowler & Banko, Inc.	4	Indian River	5.52	.....	.....	0.00	Conc.	0.00		
692	Boone & Wester	4	St. Lucie	7.38	7.38	7.38	.....	.....	Graded	100.00	
692	Fowler, & Banko, Inc.	4	St. Lucie	7.38	.....	.....	0.00	Conc.	0.00		
693	Johnson, Drake & Piper, Inc.	4	St. Lucie	8.73	.....	.....	.....	8.73	Cone.	100.00	
694	Nelson Brothers	4	Martin	8.48	.....	.....	.....	7.97	Conc.	92.00	
695	S. Vadner & Tampa Sand & Shell Co.	2	Lake	10.54	9.48	7.38	.....	.....	Graded	85.00	
698	Curtis & Gubbins	19	Leon	12.43	9.94	8.08	.....	.....	Graded	71.18	
699	State Convict Forces	19	Jefferson	7.71	7.71	6.50	.....	.....	Graded	78.00	
700	State Convict Forces	19	Jefferson	9.26	.....	Not	Reported	.....	Graded	.....	
713	C. A. Henderson	28	Columbia	10.00	6.00	3.30	.....	.....	Graded	36.40	
716	F. X. Bradley & Co.	28	Bradford	11.12	3.34	0.00	.....	.....	Graded	4.04	
717	F. X. Bradley & Co.	28	Bradford	10.93	5.47	.54	.....	.....	Graded	8.69	
718	C. G. Kershaw Const. Co.	5-A	Columbia	8.22	8.22	8.22	.....	.....	Graded	100.00	
740	State Convict Forces	10	Gulf	9.63	.....	Not	Reported	.....	Graded	.....	
743	State Convict Forces	10	Bay	18.25	.....	Not	Reported	.....	Graded	.....	
745	State Forces & Taylor Co.	19	Taylor	14.00	.....	.....	Not	Reported	.....	Graded	.....
747	Finlayson & Morris	35	Jefferson	6.50	2.34	1.82	.....	.....	Graded	21.50	
770	State Convict Forces	22	Brevard	9.00	.....	Not	Reported	.....	Graded	.....	

Total Complete June 30th, 1927 ..... 2083.21 2008.76 955.33 1521.70  
 Complete Month of June ..... 49.63 45.94 31.94 42.98  
 Total Complete May 31, 1927 ..... 2033.58 1962.82 923.39 1478.72

## TOTAL MILEAGE COMPLETE

	Concrete	Brick	B. C.	S. A.	B. M.	Asph. Block	S.T.R.B.	S. C.	Marl	Total
Complete to May 31, 1927	210.80	17.13	18.93	81.47	88.84	23.20	693.23	417.11	27.58	1572.67
Complete Month of June	9.09	3.07	3.45	.....	.....	.....	20.55	.....	.....	36.16
Complete to June 20, 1927	219.89	17.13	22.00	84.92	88.84	23.20	713.78	417.11	27.58	1608.83

## Reinforcing Bars for Concrete

Made in the United States from new billet steel.

Intelligent, dependable service by expert bridgemen.

## Dudley Bar Company

BIRMINGHAM, ALA.

Carey Elastite Expansion Joint is compressible within its own volume. The asphalt is blended to a special formula developed by Carey through many years of experience. The felt is made and saturated in Carey's own mills by Carey's own exclusive process. Inexpensive—but made in only one quality, the very best.

The Philip Carey Company  
Lockland, Cincinnati,  
Ohio



## SLAG

For any Type of Concrete Paving or Surface Treatment

Our Woodward Plant (destroyed by fire July 6th, 1926) has been rebuilt with the most modern Crushing and Screening equipment. This new plant is producing a material unexcelled in correct and uniform sizing.

Our daily capacity from two plants is 3,000 tons, and in addition thereto, we have storage facilities for taking care of rush or emergency orders.

Write or telegraph for delivered prices.

## Woodstock Slag Corporation

807-8-9 Southern Railway Building  
BIRMINGHAM, ALABAMA



## The STRONG-STURDY Russell Super-Mogul

Tears up the toughest ground—moves great gobs of dirt—accomplishes more in "a once over" than smaller outfits handle with several rounds—and that is where the economy lies in road building.

Weight 10,850 pounds of steel *plus*—extra strength built into the parts we know are most likely to be put to unusual and extreme demands—more work and better work at less cost per mile.

**Special features**—Combination Scarifier in front of blade may be operated with the blade or separately as desired. Back-Sloper for building flat bottom ditches—easily and quickly attached.

Everything for road construction, road maintenance and road repairing—

## RUSSELL GRADER MFG. CO.

MINNEAPOLIS, MINN.



JULIEN P. BENJAMIN, Jacksonville, Fla.



## Turn to the/ Right!

**P**OULATION has always followed the trail-blazer. He marks the road! The more roads, the easier population had found it to follow, always, you have noticed, taking the best road to its destination. For good roads are symbols of progress.

Judge by your own opinion, your own experience, which communities and which population territories have prospered most—and have prospered first! Those with good roads, or those with bad? Which farms command the higher values? Which towns and cities attract the most trade—those which make it easy to get in, with good roads; or those which lay obstacles in the way of the traveler with unpaved roads, roads in disrepair, roads which are dangerous with ruts and holes, which make traveling tedious and irritate the temper of the traveler.

Purchasers fail to buy freely when annoyed by bad roads. Merchants lose possible sales, community progress is checked—indeed, many cities and town lose close-by trade, because other cities have laid good roads in the other direction!

Lime Rock base roads bring money into town, increase property values and invite the traveler to stay.

When highway builders select Lime Rock they select an unsurpassed material.

With a well laid surface and proper drainage, Lime Rock represents the most economical base Florida communities can choose—low first cost; low labor cost in construction; approved both by the Government and the foremost testing laboratories, long-lasting in service.

*Lime Rock Is the Life of the Highway*

A FLORIDA PRODUCT

**LIME ROCK  
ASSOCIATION**

P. O. Box 1081

JACKSONVILLE, FLORIDA